

Rodgers Allotment - #852

Rangeland Health Standards Assessment

Allotment Overview

The Rodgers grazing allotment is located on Stukel Mountain, approximately 13 miles southeast of Klamath Falls. The allotment consists of approximately 2549 acres of public lands administered by the Bureau of Land Management (BLM) and approximately 2505 acres of intermingled private lands owned by the current lessee, A. L. Bruner. The current authorized grazing preference for the allotment is 235 AUMs with a season-of-use from May 1 to July 1. The grazing lease allows for use by 116 head of cattle. There is also an exchange-of-use agreement for the intermingled private lands that authorizes an additional 167 AUMS that equates to use by 82 cattle.

Most of this allotment is between 4700' and 5500' in elevation. The main vegetation communities have a pine or pine/juniper overstory with various shrubs and perennial and annual grasses and forbs in the understory. Throughout the allotment there are numerous openings with varying levels of surface stones and gravels. In these areas, the vegetation includes big sagebrush, low sagebrush, perennial grasses including Idaho fescue, Sandbergs bluegrass, needlegrass species, bluebunch wheatgrass, and onespike oatgrass and numerous perennial and annual forbs. Annual brome grass species are also found throughout the allotment.

During the last few years, there have been various vegetation treatments throughout the allotment designed to enhance wildlife habitat, decrease the risk for catastrophic wildfires, and to provide better growing conditions for timber species. These treatments have included juniper removal, prescribed fire, and timber harvest.

Grazing Use History

The present configuration of the Rodgers allotment is the result of the combining of two separate allotments in 1978. The allotment was previously divided by a fence that was built in 1962 by Forney Scronce, the lessee on the west and south side of this fence. This portion of the allotment was approximately 1,146 acres with a 143 AUM preference and a season of use from May 1 to July 31. The portion of the allotment to the north and east of the fence was approximately 1443 acres with a 106 AUM preference and a season of use from July 1 to September 30 and was leased to I. F. Rodgers. In 1978, the area to the west of the fence was also leased to Rodgers after he purchased the base property for that allotment. The two allotments were then effectively combined although the two separate seasons of use with separate AUMs were shown on the bills from 1978 through 1986. The fence that originally split the allotments has not been effective for many years.

In 1987, the grazing bills showed use by 150 head from July 15 to September 15. In 1988, the same numbers of cows were authorized from April 15 to August 31. Of these, 56 head or 250 AUMs were for the use on the BLM lands and 94 head or 425 AUMs were for exchange-of-use on the private lands. Beginning in 1990, a pasture schedule was listed on the bills that showed

the following:

Jeld Wen Private Land	150 cows	4/15 - 4/30
Stukel O'Neill Allot	150 cows	5/01 - 7/15
Rodgers Allot.	150 cows	7/16 - 8/31
Rodgers Private Land	150 cows	9/01 - 10/01

The pasture schedule was changed in 1996 and 1997 to reflect the following:

Stukel O'Neill Allot.	150 cows	4/15 - 6/30
Rodgers Allot.	150 cows	7/01 - 8/31

During the period from 1988 through 1997, the grazing bill showed 150 cows from April 15 to August 31 on the Rodgers allotment. Of these, 56 head or 250 AUMs were for the actual use on the BLM lands and 94 head or 425 AUMs were for exchange-of-use on the private lands. It appears that the pasture schedules listed above were developed to provide a way to divide the billing among the allotments and was not a reflection of what was occurring on the ground. The two allotments and the two parcels of private land are contiguous with only partially effective fencing between them. In reality, the livestock had access to all areas beginning in April and were taken off the mountain some time after August 31st.

In 1998 it was determined that there was not a current Exchange-of-Use document for the private lands. So the 1998 bill listed 150 cows with a use period from 4/15 to 8/31 with a 37% public land figure that results in 254 AUMs of use. Using percent public lands on the bill is a way to allocate the proportions of public and private land within an allotment that has intermingled ownership and no Exchange-of-Use agreement.

A new 10-year grazing lease was issued in 1999. During early 1999, Rodgers sold approximately 200 acres of his base property. The new lease reflected a proportional reduction of 19 AUMs of authorized use. The new lease was issued for 52 cattle from 4/15 to 8/31, which is 235 AUMs. During 1999, a new Exchange-of-Use agreement was also developed that authorized 270 AUMs, 59 cattle, for the private lands. This was based upon 2708 acres with an estimated grazing capacity of 10 acres/AUM.

In April 2000, approximately 640 acres of the Rodgers base property was sold at auction by order of the U.S. Bankruptcy Court. Al Bruner purchased 480 acres of this portion of the base. Then in June 2001, most of the remainder of the base property, approximately 2025 acres, was sold to Bruner. Approximately 203 acres of the original base property of 2908 acres that was recognized in 1968 was sold with no application made for a grazing lease. This property has been dropped from the base leaving a current recognized base of 2705 acres. The grazing lease for the allotment was transferred to Bruner in May 2002 with a 10-year term that ends in February 2012. The terms of the new grazing lease reflect the parameters that were approved through the Resource Management Plan (RMP), 235 AUMs of use from 5/01 – 7/01. This allows for grazing by 116 pairs of cattle. A new Exchange-of-Use agreement was also developed with Bruner authorizing 167 AUMs or 82 pairs of cattle during the season of use.

During 2000 and 2001, no livestock use was made on the allotment due to the property sales and changes of ownership. During 2002, Bruner requested and was granted non-use. During the summer of 2002, some cattle from the adjoining Jeld-Wen allotment (0822) did make some unauthorized use in the Rodgers allotment, mainly near Van Meter Flat.

During the development of the Resource Management Plan (RMP) for the resource area, the Rodgers allotment had the following Resource Conflicts/Concerns and corresponding Management Objectives identified.

Resource Conflicts/Concerns

Management Objectives

Under current management the range condition, level or pattern of utilization, and/or season-of-use may be unacceptable; or carrying capacity may be exceeded.

Maintain or improve rangeland condition and productivity through a change in grazing management practices, timing and/or level of active use.

Big game limited by unsatisfactory habitat condition.

Maintain or improve big game habitat in satisfactory condition.

Critical deer winter range occurs in allotment

Management systems should reflect the importance of deer winter range.

Active erosion occurs in the allotment.

Maintain and improve erosion condition in moderate or better erosion condition.

Riparian or aquatic habitat is in less than good habitat condition.

Maintain and improve riparian or aquatic habitat in good or better habitat condition.

The RMP also recommended a 74 AUM reduction in the authorized grazing use based upon a preliminary review of the available monitoring data.

Wildlife forage demands within the allotment that were identified in the RMP include 47 AUMs for deer and 17 AUMs for elk.

Monitoring Studies

The Rodgers allotment is considered an "I" category allotment for monitoring purposes. Current

monitoring studies in the allotment include Utilization Points, Use Pattern Mapping, Frequency Trend, Condition, Cole Browse, and Riparian Photo Points.

Utilization Point monitoring has been done in the allotment since 1986. The following table shows the readings from the eight points in the allotment for several years.

Year	#1	#2	#3	#4	#5	#6	#7	#8
2001	xx	xx	xx	xx	6%	xx	xx	36%
1998	xx	xx	56%	32.5%	54%	xx	56%	30%
1997	xx	xx	70%	64%	70%	xx	70%	xx
1994	xx	80%	66%	84%	78%	77%	70%	66%
1993	xx	68%	57%	51%	59%	xx	60%	51%
1992	xx	68%	71%	78%	86%	90%	60%	86%
1991	xx	80%	43%	70%	86%	78%	90%	64%
1990	xx	xx	55%	52%	66%	65%	68%	62%
1989	xx	72%	64%	60%	74%	64%	80%	74%
1988	56%	74%	66%	74%	78%	52%	80%	56%
1987	74%	79%	86%	82%	84%	70%	90%	82%
1986	60%	74%	74%	82%	80%	68%	80%	70%
Ave	63%	74%	64%	66%	68%	71%	73%	62%

xx - No reading

Use Pattern Mapping was completed on the allotment during 1993, 94, 97, and 2001. The use shown on these maps corresponds with the utilization point monitoring shown in the table above. There are some areas of consistent heavy to severe use. These are the areas around the main waterholes on the allotment including the two at the upper and lower ends of Van Meter Flat and the smaller ones to the north and east of Van Meter Flat.

Actual Use reports for the allotment have been returned for 1988, 1989, 1992, and 1994. Correlating the reports to the utilization monitoring shown above is somewhat difficult. As mentioned earlier, the Rodgers allotment has been grazed concurrently with the adjacent Jeld Wen allotment and two adjoining areas of private land due to a lack of effective fencing between the parcels. With this large expanse of land it is difficult to determine the numbers of livestock and the amount of time they spent in the actual Rodgers allotment to come up with semi-accurate

AUM figures. The levels of utilization shown above are higher than desired which is likely a result of repeated use in many areas due to the livestock having relatively uncontrolled access for a five to six month period. This “problem” will be addressed further in the Management Recommendations section.

Frequency Trend monitoring has been done at one location on the allotment. This site is indicated on the allotment map at the end of this document. The initial reading was completed in 1997 with a second reading completed in 2002. The comparison of the two readings showed significant changes in the frequency of two grass species. Sandberg bluegrass (*Poa secunda*) showed a decrease from 54% to 35%. Lemmon’s needlegrass (*Stipa lemmonii* or *Achnatherum lemmonii*) showed an increase from 28% to 37%.

It was noted that the area around the monitoring site was prescription burned during April 2002. The area was also treated with a mechanical shearer in the fall of 2002 to reduce the juniper component.

A **Condition** study was conducted in 1997 using the Ecological Site Inventory method as a basis. This study location is in the same area as the Frequency Trend site. Vegetation from the site was clipped and weighed to provide an accurate composition for the study. Using a South Slope 14-18” ecological site as the reference site for composition comparison resulted in an early seral rating of 24.4%.

Cole Browse monitoring was initiated at three sites in the fall of 1990. No follow-up spring monitoring was completed, however. Two of the sites were reread during the fall of 1991 and the spring of 1992. The reporting forms were not fully completed, but some of the collected information can be used. These two sites are scheduled for rereading again in 2004-2005.

There are three **Riparian Photo Points** located on the drainage at Van Meter Flat. Two of the points were established in 1991 and the third was set up in 1995. This is an intermittent drainage that flows mainly during the spring runoff period. The only riparian vegetation in this drainage is at the fenced waterhole known as Fenceline waterhole at the lower end of the flat.

Rangeland Health Evaluation

During November of 2001, Rangeland Health Evaluation Summary Worksheets were completed at two locations on the Rodgers allotment. The results of these worksheets will be used along with the monitoring data to help determine whether the allotment is meeting the Standards and Guidelines listed below.

Standard 1 - Watershed Function - Uplands

This standard focuses on the basic physical functions of upland soils that support plant growth, the maintenance or development of plant populations and communities, and promote dependable flows of quality water from the watershed. Some of the indicators to be used in determining

attainment of this standard include:

- amount and distribution of plant cover;
- amount and distribution of plant litter;
- accumulation/incorporation of organic matter;
- amount and distribution of bare ground, gravel, stone, and rock;
- plant composition and community structure;
- presence and integrity of biological crusts;
- absence of accelerated erosion and overland flow.

The Rodgers allotment has several different upland vegetation communities that are in varying degrees of functionality. There are stands of Ponderosa pine throughout the allotment with various densities of trees and understory vegetation. Some of these stands have invasive Western junipers within them that have caused a change in the vegetation composition, primarily a decline in the variety and amount of shrubs. In the past few years, there have been many acres of these stands that have been treated to remove the junipers. With the junipers removed, these areas should respond with an overall increase in the amount and variety of understory vegetation including the shrubs as well as grasses and forbs.

Most of the monitoring of livestock use has been in the open areas that are dominated by sagebrush, grass, and forb vegetation communities. These areas provide the primary forage sites for livestock within the allotment. Utilization monitoring has shown that many of these areas have had higher than desired levels of use by livestock for multiple years. This has resulted in a shift in species composition from productive stands of native perennial grasses and forbs within appropriate stands of sagebrush and other shrubs to the current situation where there is a dominance of lower seral stage perennial grasses with increasing levels of invasive annual grasses and forbs. The condition study that was completed in 1997 showed that approximately 72% of the total production at the selected site was from Sandbergs bluegrass and Lemmon's needlegrass. Bottlebrush squirreltail was also providing about 7% of the total production. A Potential Natural Community at this ecological site, South Slope 14-18", should have 50-70% of the production provided by bluebunch wheatgrass and Idaho fescue.

In many areas, the sagebrush component is increasing and providing a higher amount of the total production than desired. The juniper trees are also invading many of these areas and causing a lower level of production in the shrub, grass, and forb components.

Even though there has been a shift in some of the species within the communities, there is still a good amount and distribution of plant cover and litter present to provide a good level of soil protection. The recent juniper reduction projects, prescribed burning, and timber harvest activities in the allotment have caused some surface disturbance that may result in some soil movement. These impacts should be short term, as the anticipated response of the vegetation communities should be increased levels of understory vegetation and improved surface protection. The two Rangeland Health Evaluation Summary Worksheets that were completed on the allotment reported evidence of some surface soil movement occurring, but this was not excessive.

The past grazing use has resulted in high utilization levels throughout the allotment. As mentioned earlier, this has likely led to a shift in the species composition to lower seral stage grass and forb species along with an increase in the amount of sagebrush. If this shift in composition continues, there will be an overall decrease in the level of soil surface protection from the litter provided by vigorous perennial grasses. The invasive annual grasses and forbs are also shallow rooted and provide less soil holding ability than the deeper-rooted perennial species.

The recent change in the season-of-use on the allotment and the reduced livestock numbers authorized by the Exchange-of-Use agreement should result in improved vegetative conditions on the allotment. The change in the grazing ending date from August 31 to July 1 will provide for a good period of regrowth for the perennial grasses and allow for seed production to take place. This should result in an increase in these species over time. The recent juniper reduction projects should also allow for increased production by the understory grasses and forbs.

This Standard is currently not being met on the Rodgers allotment, but significant progress is being made. The new season-of-use and reduced numbers of livestock should result in improved vegetation conditions. These improved conditions will provide good soil protection and better overall watershed function. Additional proposed management to reach these objectives is addressed in the Management Recommendations section below.

Standard 2 - Watershed Function-Riparian/Wetland Areas

This Standard focuses on the properly functioning condition of riparian/wetland areas as appropriate to soil, climate, and landform.

Within the Rodgers allotment, riparian/wetland areas are limited to intermittent and ephemeral drainages and constructed waterholes. Monitoring of these areas has been limited to the photo points mentioned above in the Van Meter Flat drainage. A review of the photos shows that the drainage lacks riparian vegetation and is mainly running through a low sagebrush meadow. Livestock trailing through the bottom of this area has caused some rills and small headcuts in the drainage. Livestock tend to spend a lot of time in this area as the Fenceline waterhole at the lower end of the flat and a smaller one at the upper end provide dependable water during the season-of-use. The use in this area has been the greatest during July and August when the smaller waterholes in the allotment have dried up. The recent change in the season-of-use that ends the grazing on July 1st should benefit this area. The Fenceline waterhole at the lower end of this flat was fenced to exclude livestock in 1992. Inside the enclosure there is a good stand of spike-rush (*Eleocharis palustris*), a common plant of wet meadows and waterhole sites.

Conditions at the smaller waterholes in the allotment are generally poor in the immediate area of the waterhole but improve a short distance away.

This Standard is currently not being met on the Rodgers allotment, but significant progress is being made. The recent change in the season-of-use will lessen the use on the drainage and

waterholes in Van Meter Flat. The fencing of the Fenceline waterhole in Van Meter Flat has improved conditions there and this will continue with annual maintenance of the fence. Additional fencing options are addressed in the Management Recommendations section below.

Standard 3 - Ecological Processes

This Standard addresses the ecological processes of energy flow and nutrient cycling as influenced by existing and desired plant and animal communities. Potential indicators that can be used to determine if this Standard is being met include:

- Photosynthesis is effectively occurring throughout the potential growing season, consistent with the potential/capability of the site, as evidenced by plant composition and community structure.
- Nutrient cycling is occurring effectively, consistent with the potential/capability of the site, as evidenced by:
 - plant composition and community structure;
 - accumulation, distribution, incorporation of plant litter and organic matter into the soil;
 - animal community structure and composition;
 - root occupancy in the soil profile; and
 - biological activity including plant growth, herbivory, and rodent, insect, and microbial activity.

Much of the information from Standard 1 can be used to help determine the meeting of this Standard. The current vegetation communities in an area are one of the primary indicators for ecological processes. As noted under Standard 1, there has been a shift in the vegetation composition in many of the upland sagebrush-grass communities to early and mid-seral grass species with increasing levels of exotic and annual grasses and forbs. In some areas, the sagebrush component is providing a higher-than-desired amount of the total production. Junipers have also been invading some of the vegetation communities. Although these communities are not in Potential Natural Community (PNC) condition, they are still allowing the processes of energy flow and nutrient recycling to occur. Perennial grass species still dominate the understory of most sites and provide adequate litter cover, root occupancy, and organic matter incorporation. In some of the areas that are being invaded by junipers, there has been a decrease in the variety and amount of understory species. The junipers are able to effectively extract the moisture and nutrients from the surrounding soils leaving little for the understory species. This has led to more bare soils due to the absence of these species and the litter they provide. The recent juniper reduction projects in the allotment should result in an increase in the understory species over time.

The recent shortening of the grazing season-of-use should also benefit the ecological processes in the allotment. The main forage grasses will have a chance for additional growth and seed

production after the livestock are removed. This will provide increased levels of litter and organic matter incorporation into the soils over time.

This Standard is currently being met on the Rodgers allotment.

Standard 4 - Water Quality

This Standard addresses surface and groundwater quality as influenced by agency actions and whether it complies with State water quality standards.

As noted under Standard 2 above, the surface water areas on the allotment are limited to ephemeral and intermittent streams and waterholes. The several small drainages from the main part of the allotment flow to the south to a common drainage in an area known as Dodds Hollow. This drainage flows through several irrigation reservoirs downstream and any flow that remains after these are filled goes into an irrigation canal that parallels the Lost River. Any sediment that enters this system from the grazing allotment likely ends up in one of the reservoirs or in the stream channel with negligible impact.

As mentioned earlier, the intermittent channel that flows through Van Meter Flat has been impacted by livestock use. Active erosion points are found along this channel. This has likely resulted in increased sediment movement into the Fenceline waterhole at the lower end of the flat. The shortening of the season-of-use should help decrease these impacts. If significant impacts do continue, fencing of the flat into a separate pasture may be pursued. This option is discussed in the Management Recommendations section of this document.

The fencing of the Fenceline waterhole has led to an increase in the quantity and vigor of the riparian vegetation surrounding it. There have been no water quality measurements taken at this waterhole, but the improvements in the overall conditions would indicate that the water quality has also improved.

This Standard is currently not being met on the Rodgers allotment, but significant progress is being made. The recent change in the season-of-use should help decrease the livestock impacts to the intermittent channels. The fencing of the Fenceline waterhole has resulted in improvements to the riparian vegetation conditions at the waterhole.

Standard 5 - Native, T&E, and Locally Important Species

This Standard focuses on retaining and restoring native plant and animal (including fish) species, populations and communities (including threatened, endangered, and other special status species and species of local importance).

Potential indicators that can be used to determine if this Standard is being met include;

Essential habitat elements for species, populations and communities are present and

available, consistent with the potential/capability of the landscape, as evidenced by:

- plant community composition, age class distribution, productivity;
- animal community composition, productivity;
- habitat elements;
- spatial distribution of habitat;
- habitat connectivity; and
- population stability/resilience.

The information used for determining Standards 1 and 3 also applies to this Standard. The plant communities that are present in the allotment mainly consist of native plant species with some exotic grass species present in areas of past disturbance. As mentioned earlier, much of the allotment is a pine or pine/juniper overstory with various shrubs, grasses, and forbs in the understory. There is good age class distribution through most of the species with good levels of production. Recent management activities such as prescribed fire, juniper reduction, and timber harvest have had some short-term negative effects on the understory species. However, the long-term benefits of reduced competition, increased forest canopy openings, and better moisture availability will greatly outweigh these short-term effects.

The sagebrush-grass dominated communities have generally experienced a shift to lower seral state species, but are still providing good habitat elements. The recent changes in the allotment management should allow for increased diversity and production in these areas that will benefit the dependent wildlife species.

The current plant communities in the allotment are providing good habitat elements for a variety of native animal species. This allotment is considered critical deer winter range. Recent and planned prescribed fire and juniper reduction projects will provide for improved deer habitat. An increase in shrub and grass species should occur as the timbered stands are opened up. Livestock do not regularly access many of the steeper areas of the allotment and these provide good habitat refuges for many of the wildlife species that utilize the allotment. There are also several species of birds using the allotment including golden eagles, bald eagles, and goshawks. Current livestock management is having no negative effects on these species.

Portions of the Rodgers allotment were surveyed for special status vascular plants and noxious weeds in 1992, 1993, and 1996. Through the use of a botany contract, the entire allotment was surveyed for special status vascular plants and noxious weeds in 1997. As a result of these combined surveys, one site of the Klamath County noxious weed spiny cockle-bur (*Xanthium spinosum*) was discovered in 1997 in the northern part of the allotment on BLM-administered land. This site has been chemically treated and eradicated since discovery.

This Standard is currently being met on the Rodgers allotment. The recent changes in the livestock management should also improve the habitat conditions for plant and animal species.

Management Recommendations

The recent shortening of the grazing season-of-use should result in improvements to the vegetation and soil conditions in the allotment. This should also provide benefits to the riparian/wetland and wildlife resources in the allotment. Historic use of the allotment has been in conjunction with the Jeld Wen allotment to the west and with other intermingled private lands. Livestock had access to the Rodgers allotment from late April until late August or early September each year. The new season-of-use of May 1 to July 1 should help provide for acceptable levels of utilization and limit the negative impacts to the vegetation and soils and the associated resources.

There are some structural range improvements that should be considered to provide for effective management of the livestock grazing. Currently, the allotment boundary fencing is considered ineffective in several locations. The west boundary fence that separates the Rodgers allotment from the Jeld Wen allotment and its associated private lands needs to be maintained and/or rebuilt in several locations. Historically, these two allotments were grazed together and the boundary fence was not an important consideration. The Jeld Wen allotment BLM grazing lease is dependent upon a base property lease from the Jeld Wen Corporation, the owners of the base property. Someone other than A. L. Bruner, the present Rodgers allotment lessee, currently holds this private land lease. These two allotment have similar seasons-of-use and need to be fenced to control livestock drift between the two allotments.

There have also been past problems with livestock drifting onto the Cunard grazing allotment from the Rodgers allotment. The livestock would typically drift onto this allotment in the late summer as forage conditions on the Rodgers allotment declined. The Cunard allotment is located to the east and down a steep slope from the Rodgers allotment (see attached map). The recently shortened season-of-use may help alleviate this problem but it should be monitored during use supervision visits.

The exclosure fencing at the Fenceline waterhole has been fairly effective at keeping livestock out of the water and associated wetland vegetation. However, when the waterhole is full there is still an area of water that extends beyond the fence. The fenced area should be expanded to include all of the water, the wetland area, and more of the intermittent channels that flow into the waterhole. The water gap for livestock should also be improved to provide more control when the water levels are low.

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Determination

- (X) Existing grazing management practices and/or levels of grazing use on the Rodgers grazing allotment promotes achievement or significant progress toward the Oregon Standards for Rangeland Health and conforms with the Guidelines for Livestock Grazing Management.
- () Existing grazing management practices and/or levels of grazing use on the Rodgers grazing allotment will require modification or change prior to the next grazing season to promote achievement of the Oregon Standards for Rangeland Health and conform with the Guidelines for Livestock Grazing Management.

/s/ Mel Crockett
Acting Field Manager,
Klamath Falls Resource Area

3/10/03
Date